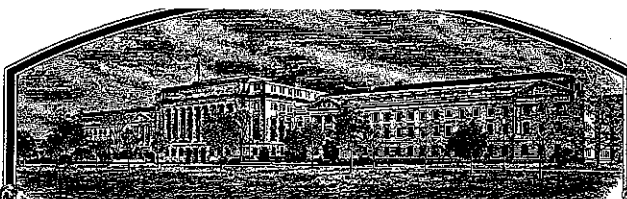


No.

200100032



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

NASH Research Foundation

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR PLANT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED, (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'Barnes'



In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this tenth day of September, in the year two thousand and four.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

REPRODUCE LOCALLY. Include form number and date on all reproductions

Form Approved - OMB No. 0561-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICEAPPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER NDSU Research Foundation		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME ND95-931		3. VARIETY NAME Barnes	
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) c/o Executive Director PO Box 5014 5002 (BT:6/24/2004) Fargo, ND 58105- 5014 5002 (BT:6/24/2004)		5. TELEPHONE (include area code) 701-231-8931		FOR OFFICIAL USE ONLY 200 100 032	
		6. FAX (include area code) 701-231-1013 (BT:6/24/2004)		FILING DATE October 19/2000	
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) NDSU Research Foundation -501(C) 3		8. IF INCORPORATED, GIVE STATE OF INCORPORATION North Dakota		9. DATE OF INCORPORATION May 1989	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) Theodore C. Helms Dept. of Plant Sciences North Dakota State Univ. Fargo, ND 58105-5051				FILING AND EXAMINATION FEES: \$2,705.00 DATE 10/19/2000 CERTIFICATION FEE: \$432.00 DATE 7/12/04	
11. TELEPHONE (include area code) 701-231-8136		12. FAX (include area code) 701-231-8474		13. E-MAIL ted.helms@ndsu.nodak.edu	
				14. CROP KIND (Common Name) soybean	
15. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse) a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety d. <input type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$2,705), made payable to "Treasury of the United States" (Mail to the Plant Variety Protection Office)			19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? See Section 43(a) of the Plant Variety Protection Act <input checked="" type="checkbox"/> YES (If "yes", answer items 20 and 21 below) <input type="checkbox"/> NO (If "no," go to item 22)		
			20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? IF YES, WHICH CLASSES? <input checked="" type="checkbox"/> FOUNDATION <input checked="" type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED		
			21. DOES THE OWNER SPECIFY THAT THE CLASSES BE LIMITED AS TO NUMBER OF GENERATIONS? IF YES, SPECIFY THE NUMBER 1, 2, 3, etc. <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED		
			(If additional explanation is necessary, please use the space indicated on the reverse.)		
22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)			23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)		
24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.					
SIGNATURE OF OWNER Dale Zetocha			SIGNATURE OF OWNER		
NAME (Please print or type) Dale Zetocha			NAME (Please print or type)		
CAPACITY OR TITLE Executive Director		DATE 5/6/04		CAPACITY OR TITLE	
				DATE	

INSTRUCTIONS

200100032

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Complete application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$2,800 (\$300 filing fee and \$2,500 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$300 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office

Telephone: (301) 504-5518

FAX: (301) 504-5291

Homepage: <http://www.ams.usda.gov/science/pvp.htm>

ITEM

- 18a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) evidence of uniformity and stability; and (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If a new variety is most similar to one variety or a group of related varieties:
- (1) identify these varieties and state all differences objectively;
 - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness
- 18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
19. If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
22. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
23. See Section 5.5 of the Act for instructions on claiming the benefit of an earlier filing date.

22. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

U.S.A. release date January 18, 2000

23. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

Pioneer Hi-Bred International Inc.
9061 USA Date of Issue February 28, 1986
Reference No. 8500144

PVP

RAO
11/14/00

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or ownership representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

To avoid conflict with other variety names in use, the applicant must check the variety names proposed by contacting: Seed Branch, AMS, USDA, Room 200, Building 306, Beltsville Agricultural Research Center-East, Beltsville, MD 20705. Telephone: (301) 504-8089.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Jamie L. Whitten Building, Washington, D.C. 20250. When replying, refer to OMB No. 0581-0055 and form number 1010-0188. Under the PRA of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

The U.S. Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or family status. Prohibited bases apply to all programs. Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact the USDA Office of Communications at (202) 720-2791. To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call (202) 720-7327 (voice) or (202) 720-1127 (TDD). USDA is an equal opportunity employer.

S&T-470 (6-98) designed by the Plant Variety Protection Office with WordPerfect 6.0a. Replaces STD-470 (03-96) which is obsolete.

200 100 032

Exhibit A**Origin and Breeding History of the Variety Barnes**

Barnes, tested as ND no., 95-931, was derived from the cross ND88-800/Pioneer 9061, made in 1993. ND88-800 is an experimental line developed by North Dakota State University, Fargo, ND that was never released as a named cultivar. Pioneer 9061 is a cultivar that was available commercially and developed by Pioneer Hi-Bred International, Inc., Des Moines, Iowa. The cross was made in the summer of 1993 at Fargo, ND. The F_1 plant was grown in the 1993-1994 Chile, S.A. winter nursery. The F_2 seed was grown in the summer of 1994 and advanced to the F_3 generation by the single-pod bulk method. The F_3 population was grown in the 1994-1995 winter nursery. $F_{3.4}$ plant-rows were selected in 1995. ND95-931 was first tested in replicated yield trials in 1996. Barnes was evaluated in the Uniform Regional Tests: Northern States as a Maturity Group 0 experimental line in 1998 and 1999. Individual $F_{3.8}$ plants were threshed in 1997 and 32 single plant selections were evaluated for uniformity in the summer of 1998 at Casselton, ND. Two purification rows were discarded and the remaining 30 rows were individually harvested and bulked after evaluation of hilum color, plant maturity, flower color, plant height, pubescence color, seed coat luster and color, and pod color. Breeder seed of ND95-931 was increased in the 1998-1999 Chile winter nursery. In the summer of 1999 the Foundation seed of ND95-931 was increased at Casselton and Carrington, ND. Barnes was released January 18, 2000 as an F_{11} generation pure line soybean cultivar. Variants that include up to: 0.5% yellow hila, 0.2% black hila, 0.2% gray hila, 0.2% tawny pubescence color, 0.2% white flower color and 0.2% tan pod color are considered within normal variation for the cultivar Barnes. Barnes has been observed to be uniform ^{and} stable for a period of three years. *for characteristics described within the application (per applicant's authorization expressed on 5/7/2004 ~~by~~).*

Exhibit B**Novelty Statement**

1. Barnes was developed primarily for increased yield, phytophthora root rot resistance and suitable maturity for North Dakota. Barnes is morphologically different from both parents. However, Barnes is most similar to Pioneer 9061. (5/7/2004 bt per applicant's authorization).

2. Pioneer 9061 has purple flower color, grey pubescence, brown pods, yellow hila color and an indeterminate growth habit. Barnes has purple flower color, grey pubescence, brown pods, dull seed coat luster, buff hila, and an indeterminate growth habit.

REPRODUCE LOCALLY. Include form number and date on all reproductions.

Form Approved - OMB No. 0581-0055

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection of information is (0581-0055). The time required to complete this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

EXHIBIT C
(Soybean)

OBJECTIVE DESCRIPTION OF VARIETY
SOYBEAN (*Glycine max* (L.) Merr.)

NAME OF APPLICANT(S) NDSU Research Foundation	FOR OFFICIAL USE ONLY
ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) PO Box 5014 Fargo, ND 58105-5014	200 100 032
	VARIETY NAME Barnes
	TEMPORARY OR EXPERIMENTAL DESIGNATION ND95-931

PLEASE READ ALL INSTRUCTIONS CAREFULLY: Place the appropriate number that describes the varietal character of this variety in the boxes below.

Place a zero in the first box (e.g.

9	9	9
---	---	---

 or

0	9
---	---

) when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used:

Please answer all questions for your variety; lack of response may delay progress of your application.

A. MORPHOLOGY

Seed Shape:

- | | | | |
|---|--|--|---|
| <table border="1"><tr><td>4</td></tr></table> | 4 | 1 = Spherical
(L/W, L/T, and T/W ratios < 1.2) | 2 = Spherical-Flattened
(L/W ratio > 1.2; L/T ratio < 1.2) |
| 4 | | | |
| | 3 = Elongate
(L/T ratio > 1.2; T/W ratio < 1.2) | 4 = Elongate-Flattened
(L/T ratio > 1.2; T/W ratio > 1.2) | |

Seed Coat Color:

- | | | | | | | |
|---|---|------------|-----------|-----------|-----------|-------------------------------------|
| <table border="1"><tr><td>1</td></tr></table> | 1 | 1 = Yellow | 2 = Green | 3 = Brown | 4 = Black | 5 = Other
(Please Specify) _____ |
| 1 | | | | | | |

Seed Coat Luster:

- | | | | |
|---|---|----------|-----------|
| <table border="1"><tr><td>1</td></tr></table> | 1 | 1 = Dull | 2 = Shiny |
| 1 | | | |

Seed Size:

- | | | | |
|---|---|---|-----------------|
| <table border="1"><tr><td>1</td><td>8</td></tr></table> | 1 | 8 | grams/100 seeds |
| 1 | 8 | | |

Hilum Color:

- | | | | | | | |
|---|-----------|----------------------------------|------------|-----------|----------|---------------------|
| <table border="1"><tr><td>1</td></tr></table> | 1 | 1 = Buff | 2 = Yellow | 3 = Brown | 4 = Gray | 5 = Imperfect Black |
| 1 | | | | | | |
| | 6 = Black | 7 = Other (Please Specify) _____ | | | | |

A. MORPHOLOGY (Continued)

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Cotyledon Color:

☐ 1 = Yellow 2 = Green

Seed Protein Peroxidase Activity:

☐ 2 1 = Low 2 = High

Hypocotyl Color:

<input type="checkbox"/> 4	1 = Green ('Evans' or 'Davis')	2 = Green with Bronze Bands below Cotyledon ('Woodworth' or 'Tracy')	3 = Light Purple below Cotyledons ('Beeson' or 'Pickett 71')	4 = Dark Purple extending to unifoliate leaves ('Hodgson', 'Coker', or 'Hampton 266A')
----------------------------	-------------------------------------	--	--	--

Leaf Shape:

☐ 2 1 = Lanceolate 2 = Oval 3 = Ovate 4 = Other (Please Specify) _____

Flower Color:

☐ 2 1 = White 2 = Purple 3 = White with a Purple Throat

Pod Color:

☐ 2 1 = Tan 2 = Brown 3 = Black

Pubescence Color:

☐ 1 1 = Gray 2 = Brown (Tawny) 3 = Light Tawny

Plant Habit:

☐ 3 1 = Determinate 2 = Semi - Determinate 3 = Indeterminate 4 = Intermediate

Maturity Group:

<input type="checkbox"/> 0	<input type="checkbox"/> 3	1 = 000	2 = 00	3 = 0	4 = I	5 = II
		6 = III	7 = IV	8 = V	9 = VI	10 = VII
		11 = VIII	12 = IX	13 = X	14 = XI	15 = XII

Maturity Subgroup:

☐ 3 Please enter a value from 0 - 9

B. DISEASE REACTIONS

0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Tolerant

Bacterial

☐ 0 Bacterial Pustule (*Xanthomonas campestris* pv. *glycines* (Nakano) Dye)

☐ 0 Bacterial Blight (*Pseudomonas syringae* pv. *glycinea* (Coerper) Young, Dye, & Wilkie)

☐ 0 Wildfire Blight (*Pseudomonas syringae* pv. *tabaci* (Wolf & Foster) Young, Dye, & Wilkie)

B. DISEASE REACTIONS (Continued) 0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Tolerant

Fungal

☐ Brown Spot (*Septoria glycines* Hemmi)

Frogeye Leaf Spot (*Cercospora sojina* Hara)

<input type="checkbox"/> race 1	<input type="checkbox"/> race 2	<input type="checkbox"/> race 3	<input type="checkbox"/> race 4
<input type="checkbox"/> race 5	<input type="checkbox"/> race 6	<input type="checkbox"/> Other (Please Specify) _____	

☐ Target Spot (*Corynespora cassicola* (Berk. & Curt.) Wei)

☐ Downey Mildew (*Peronospora trifoliorum* var. *manchurica* (Naum.) Syd. ex Gäum)

☐ Powdery Mildew (*Microsphaera diffusa* Cke. & Pl.)

☐ Brown Stem Rot (*Phialophora gregata* (Allington & Chamberlain) W. Gams.)

☐ Stem Canker (*Diaporthe phaseolorum* (Cke. & Ell.) Sacc. var. *caulivora* Athow & Caldwell)

☐ Pod and Stem Blight (*Diaporthe phaseolorum* (Cke. & Ell.) Sacc. var. *sojae* (Lehman) Wehm.)

☐ Purple Seed Stain (*Cercospora kikuchii* (T. Matsu. & Tomoyasu) Gardener)

☐ Rhizoctonia Root Rot (*Rhizoctonia solani* Kühn)

Phytophthora Root Rot (*Phytophthora megasperma* Drechs. f. sp. *glycinea* (Kuan & Erwin))

<input type="checkbox"/> race 1	<input type="checkbox"/> race 8	<input type="checkbox"/> race 15	<input type="checkbox"/> race 22
<input type="checkbox"/> race 2	<input type="checkbox"/> race 9	<input type="checkbox"/> race 16	<input type="checkbox"/> race 23
<input type="checkbox"/> race 3	<input type="checkbox"/> race 10	<input type="checkbox"/> race 17	<input type="checkbox"/> race 24
<input type="checkbox"/> race 4	<input type="checkbox"/> race 11	<input type="checkbox"/> race 18	<input type="checkbox"/> race 25
<input type="checkbox"/> race 5	<input type="checkbox"/> race 12	<input type="checkbox"/> race 19	<input type="checkbox"/> race 26
<input type="checkbox"/> race 6	<input type="checkbox"/> race 13	<input type="checkbox"/> race 20	<input type="checkbox"/> Other (Please Specify) _____
<input type="checkbox"/> race 7	<input type="checkbox"/> race 14	<input type="checkbox"/> race 21	

☐ Bud Blight (Tobacco Ringspot Virus)

☐ Yellow Mosaic (Bean Yellow Mosaic Virus)

B. DISEASE REACTIONS (Continued) 0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Tolerant

☐ Cowpea Mosaic (Cowpea Chlorotic Virus)

☐ Pod Mottle (Bean Pod Mottle Virus)

☐ Seed Mottle (Soybean Mosaic Virus)

Nematode

Soybean Cyst Nematode (*Heterodera glycines* Ichinohe)

<input type="checkbox"/> race 1	<input type="checkbox"/> race 4	<input type="checkbox"/> race 9
<input type="checkbox"/> race 2	<input type="checkbox"/> race 5	<input type="checkbox"/> race 14
<input type="checkbox"/> race 3	<input type="checkbox"/> race 6	<input type="checkbox"/> Other (Please Specify) _____

☐ Lance Nematode (*Hoplolaimus columbus* Sher)

☐ Southern Root Knot Nematode (*Meloidogyne incognita* (Kofoid & White) Chitwood)

☐ Northern Root Knot Nematode (*Meloidogyne hapla* Chitwood)

☐ Peanut Root Knot Nematode (*Meloidogyne arenaria* (Neal) Chitwood)

☐ Reniform Nematode (*Rotylenchus reniformus* Linwood & Olivera)

☐ Javanese Nematode (*Meloidogyne javanica* (Treub) Chitwood)

☐ Other Nematode (Please Specify) _____

C. PHYSIOLOGICAL RESPONSES

0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Tolerant

☐ Iron Chlorosis on Calcareous Soil

☐ Phosphorus

☐ Other (Please Specify) _____

☐ Boron

☐ Aluminum

☐ Salt

☐ Drought

D. INSECT REACTIONS

0 = Not Tested

1 = Susceptible

2 = Resistant

3 = Tolerant

☐Mexican Bean Beetle (*Epilachna varivestis* Mulsant)☐Potato Leaf Hopper (*Empoasca fabae* (Harris))☐

Other (Please Specify) _____

E. HERBICIDE REACTIONS

0 = Not Tested

1 = Susceptible

2 = Resistant

☐

Metribuzin

☐

Bentazone

☐

Sulfonylurea

☐

Glyphosate

☐

Glufosinate

☐

Pendimethalin

☐

Other (Please Specify) _____

F. TRANSGENIC COMPOSITION

Has the development of the subject variety included the insertion of genetic material from an organism other than a soybean, or, the removal of genetic material from the application variety?

If yes, please complete the following information requests*. Use additional pages if necessary:

☐

YES

☒

NO

1. Please state the vector's name:
2. Please state the vector components:
3. Please describe the genetic material successfully transferred into the subject variety:
4. Please describe the insertion protocol:

* A literature citation(s) explaining the four information requests above may be an acceptable alternative to completion of the "Transgenic Composition" portion of this form.

G. BIOCHEMICAL MARKERS

Please describe any biochemical information here, which you believe will be helpful in further describing the subject variety (e.g. Simple Sequence Repeats, Restriction Fragment Length Polymorphisms, Isozymic Characterization). Use additional pages if necessary.

SSR marker data will be provided

200 100 032

II. COMMENTS

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

1. NAME OF APPLICANT(S) NDSU Research Foundation		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER ND95-931	3. VARIETY NAME Barnes
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) c/o Executive Director P.O. Box 5014 Fargo, ND 58105-5014		5. TELEPHONE (include area code) 701-231-8931	6. FAX (include area code) 701-231-1013
		7. PVPO NUMBER 200100032	
8. Does the applicant own all rights to the variety? Mark an "X" in appropriate block. If no, please explain. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
9. Is the applicant (individual or company) a U.S. national or U.S. based company? If no, give name of country <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
10. Is the applicant the original owner? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If no, please answer the following:			
a. If original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. national(s)? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If no, give name of country _____			
b. If original rights to variety were owned by a company, is the original owner(s) a U.S. based company? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If no, give name of country _____			
11. Additional explanation on ownership (If needed, use reverse for extra space): See additional Exhibit E Statement of the Basis of the Applicant's Ownership included with this application.			

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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Exhibit E

Statement of the basis of applicant's ownership

Dr. Theodore Helms, an employee of the North Dakota Agricultural Experiment Station and North Dakota State University, is the plant breeder who developed 'BARNES', the soybean cultivar for which Plant Variety Protection is hereby sought. The employee by agreement and because of the conditions of the use of the facilities and funds of the North Dakota Agricultural Experiment Station and North Dakota State University has assigned all ownership rights to 'BARNES' soybean to the North Dakota Agricultural Experiment Station and North Dakota State University.

North Dakota State University on behalf of the North Dakota Agricultural Experiment Station has assigned ownership to the NDSU Research Foundation. The NDSU Research Foundation is a nonprofit corporation set up to own and manage the intellectual property of North Dakota State University.